

Recently, and evidently, the most probable cause is the fact that the first strength theory -- whose applicability to ice has not been experimentally confirmed -- was objectively used by all researchers in computing calculated loads with experimental values.

In the light of the foregoing, the recommended values of allowable stresses can be viewed only as provisional quantities, whose comparison with stresses calculated by formulas of bending theory permits a solution of the problem of what is the allowable load on ice for cases that are close to those considered. But in other calculation cases, reliance on these values can lead to gross errors in calculation and to serious aftereffects in practice. All this indicates the necessity of further treatment of the problem.

2. Since in experiments on the tension and bending of ice at any temperature falls according to the type of failure of brittle materials to which, as is known [9, 10], the second theory of strength and the Mohr strength theories are applicable, calculation of ice cover is logically based on these

$$\sigma_1 - p \sigma_2 \leq R_c$$

(1)

where $\mu = \nu$ in the second strength theory and $\mu = R_c/R_p$ in the Mohr strength theory; R_c = compression; p = tension; μ = tension-compression; R_p = strength limit of ice in compression, tension, and tension with bending; and $\nu = 0.33$ to Poisson's ratio.

The relationship between compressive ice strength and tensile-flexural ice strength has been studied in special experiments conducted by L. P. Butymkin [11], based on which we can take as an average, $\mu = \nu = 0.33$.

The applicability of condition (1) to ice cover was verified with a series of field and laboratory experiments [9, 13, 14] in which ice fields functioning in one instance as infinitely, and in another -- as semi-infinite fields were loaded to failure.

The experimental results are presented in graphs of the function $p = h^2 f(a)$ (2a is the reduced side of a square over whose area the load is distributed) in Fig. 1. The curves in this figure correspond to the load is $< h < 10$ cm thick, and large-scale experiments are denoted with triangle points ($h = 18-40$ cm).

AA0052397

UR 0482

Soviet Inventions Illustrated, Section III Mechanical and General,
Derwent, 1-70

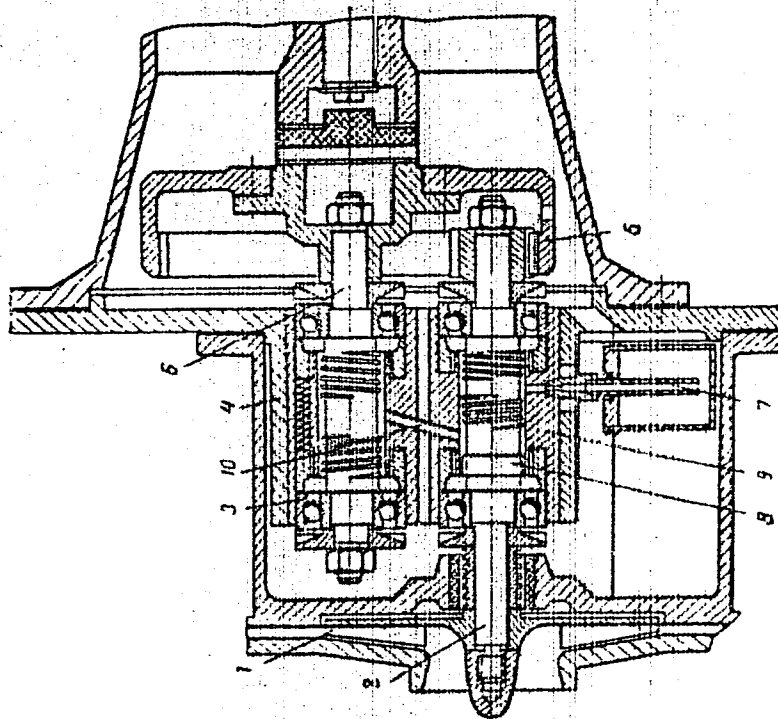
241841 GREASER FOR BEARINGS on parallel low-speed
6 and high-speed 2 shafts driving
ventilator 1. Each shaft has two opposite
threads to feed lubricant to the bearings, and the
greasing system differs in that shaft 2 has a
sealing collar 8 which forms a pressure chamber
with housing 9 and the left-hand section of the
thread connecting to the space between the threads
on shaft 6 via channel 10. Part of the lubricant
in this pressure chamber goes to the bearing on
shaft 2 nearest the sealing collar, and the
remainder goes to the bearings of low speed
shaft 6.

27.3.68. as 1227925/25-8, PANFILOV, E.A. et al.
Machine Building Standardisation Res. Inst.
(29.8.69) Bul. 14/18.4.69. Class 47e, Int. Cl.
F, 16n.

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AA0052397



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19821008

AA0052397

Panfilov, Ye. A.; Lubenets, V. D.; Romanenko, N. T.; Nikitin, Yu. F.;
Terkel', A. L.; Novozhilov, Yu. N.; Tormozova, L. B.
Vsesoyuznyy Nauchno-Issledovatel'skiy Institut po Normalizatsii v
Mashinostroyenii

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19821009

UDC 621.039.524.2.034.3

USSR

LOMAKIN, S. S., MORDOVSKAYA, T. S., PANFILOV, G. G., PETROV,
V. I., SAMOYLOV, P. S., and KHEYZOV, V. V.

"Measuring the Effective Neutron Temperature in Uranium-Graphite
Reactors"

Moscow, Atomnaya Energiya, Vol 29, No 1, Jul 70, pp 36-37

Translation: A brief description is given for the technique used in measuring the effective neutron temperature in uranium-graphite reactors. The effective neutron temperature was measured by the integral method in the F-1 graphite research reactor using natural uranium and in the Pervaya (first) Atomic Electric Power Plant reactor in Obninsk. Ceramic activation detectors made of lutecium and manganese in the form of tablets 8 mm in diameter were used. The Westcott formalism modified for the case of detectors of finite thickness was used to process the results. The detectors were calibrated in a graphite prism with a thermal neutron spectrum. The activity of the detectors was measured on a scintillation γ -counter with a NaI (TI) crystal and a PP-9 scaler which has an integral discriminator by means of which the corresponding thresholds were established. The measured saturation activities of the detectors, the cadmium

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USSR

LOMAKIN, S. S., et al., Atomnaya Energoya, Vol 29, No 1, Jul 70, pp 36-37

ratio, and the calibration factor were used to determine the neutron temperature. The measurements in the F-1 reactor were taken in the center of the core. The neutron temperature T_{neutron} averaged with respect to four measurements with different pairs of lutecium-manganeses detectors was $348 \pm 10^\circ\text{K}$.

The measurements at the Pervaya Atomic Electric Power Plant were taken in an empty process tube; T_{neutron} was $393 \pm 12^\circ\text{K}$. On the basis of the experimental data obtained and the published experimental data on T_{neutron} for uranium-graphite systems, the empirical relation between the neutron temperature T_{neutron} and the temperature of the medium T_0 was refined:

$$T_{\text{neutron}} = T_0 \left(1 + A \frac{\Sigma_a(kT_0)}{\Sigma_s} \right),$$

where $A = 16.5$. The calculated value of A according to R. Coveyou for uranium-graphite systems is 11.

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USSR

UDC 619:576.851.55:576.809.33

URGUYEV, K. R., KIRILLOV, I. V., LYUBICH, F. D., LAVCHENKO, Ye. G., PANFILOV, I. D.
and PLESKIKH, A. S.

"Toxin Formation by *Cl. perfringens* in a Casein-Pancreatic Nutrient Medium"

Moscow, Veterinariya, No 2, Feb 73, pp 39-40

Abstract: A study was made of the cultivation on a casein-pancreatic medium of *Cl. perfringens*, type D, that causes infectious enterotoxemia of sheep and is used as a component part in the preparation of a concentrated polyvalent vaccine used against braxy, infectious enterotoxemia, and malignant dropsy of sheep as well as dysentery of lambs. On enzymatic hydrolysis of the casein at 42°C for 20-30 min, the medium, which contained 25% yeast water and 1% millet, had a high content of all peptide fractions, which form the principal source of N in toxin synthesis. The accumulation of epsilon-toxin was 4-6 times greater than in other media (e.g., Hottinger's medium). The formation of toxin was related to the content in the medium of albumoses with a high and medium molecular weight and depended on the amine coefficient of the medium (the ratio of non-protein N to the total amine N). The highest toxigenicity (20,000-24,000 Dlm/ml) was obtained at an amine coefficient in the 0.72-0.75 range.

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URGUYEV, K. R, et al., Veterinariya, No 2, Feb 73, pp 39-40

At increasing values of the coefficient to 0.91 and higher, the toxin content dropped sharply (to 4,000-6,000 Dlm/ml). The higher the content of free amino acids and the lower that of peptide fractions, the lower was the concentration of the toxin formed.

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AA0046382

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0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

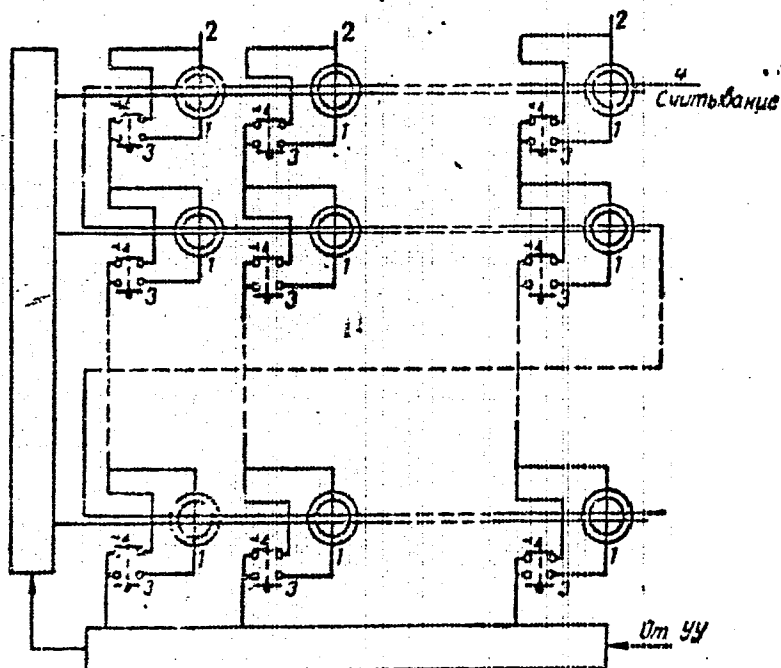
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242972 MAGNETIC RECORDING OF INFORMATION useful in computer technology is carried out more simply and rapidly irrespective of the form in which the information is being recorded, by including into the registering rail of the magnetic matrix push-button switches, which commutate the information registration signal into the appropriate cores of the matrix.

4.3.68 as 1223122/18-24. I.V. PANFILOV, LENINGRAD A.F. MOZHAISKII MILITARY ENG. ACAD. (17.9.69) Bul 16/5.5.69 Class 21a¹. Int. Cl. G 11c.

19781549

AA0046382



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19781550

88

AA0046382

AUTHOR: Panfilov, I. V.

Leningradskaya Voyennaya Inzhenernaya Krasnoznamennaya Akademiya im. A. F.
Hozhayskogo

19781551

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1/2 017 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--KINETICS OF THE SETTLING OF METALLIC INCLUSIONS IN SLAGS -U-
AUTHOR-(04)-PANFILOV, M.I., BARYSHNIKOV, V.G., DERYABIN, A.A., POPEL, S.I.
COUNTRY OF INFO--USSR
SOURCE--IZVEST. AKAD. NAUK SSSR, METALLY, MAR.-APR. 1970, (2), 106-115
DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--REACTION KINETICS, DESULFURIZATION, STEEL, METAL INCLUSION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3003/1446

STEP NO--UR/0370/70/000/002/0106/0115

SIPC ACCESSION NO--4P0130379

UNCLASSIFIED

2/2 017

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0130379

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE KINETICS OF THE SETTLING OF METAL PARTICLES AND THE RISING OF GAS BUBBLES IN SLAGS DURING VARIOUS METALLURGICAL PROCESSES ARE DISCUSSED THEORETICALLY. ALLOWANCE IS MADE FOR THE COMBINED MOTION OF THE METAL PARTICLES AND THE GAS BUBBLES. IN THE DESULPHURIZATION OF STEEL, AS THE SIZE OF THE BUBBLES INCREASES THE RATE OF SETTLING OF THE METAL FALLS TO ZERO AND MAY EVEN CHANGE DIRECTION. THIS EFFECT WAS CONFIRMED EXPERIMENTALLY. THE FLOTATION OF METAL DROPS BY GAS BUBBLES GREATLY INCREASES THE PERIOD WHICH THEY SPEND IN THE SLAG AND TENDS TO INCREASE THE OVERALL LOSS OF METAL.

UNCLASSIFIED

Acc. Nr. **AP0053746** - Abstracting Service:
CHEMICAL ABST.

Ref. Code:

UR0080

110598v Kinetics of the decarbonylation of furfural on an oxide catalyst. Karpenko, L. A.; Panfilov, M. N. (USSR). *Zh. Prikl. Khim. (Leningrad)* 1970, 43(1), 135-40 (Russ). Kinetic curves were shown for the title reaction on mixed oxides of Mn, Zn and Cr run in a flow system with H_2O ; furfural ratio in the feed being varied from 17 to 28.5 (molar scale) in the 400° temp. range. The reaction followed apparent 1st order kinetics and activation energy of 24.3 kcal/mole. An approx. empirical kinetic equation was derived from the data. G. M. Kosolapoff

REEL/FRAME
19830807

1/2 030 UNCLASSIFIED PROCESSING DATE--020CT70
TITLE--MERIDIONAL REINFORCEMENT OF THE SCLERA WITH FEMORAL FASCIA LATA IN
PROGRESSIVE MYOPIA -U-
AUTHOR--(02)-YEROSHEVSKIY, T.I., PANFILOV, N.I.
COUNTRY OF INFO--USSR
SOURCE--VESTNIK OFTAL'MOLOGII, 1970, NR 2, PP 19-23
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--EYE DISEASE, MUSCLE, TISSUE TRANSPLANT, VISUAL ACUITY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1986/0827 STEP NO--UR/0357/70/000/002/0019/0023
CIRC ACCESSION NO--AP0102789
UNCLASSIFIED

2/2 030

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0102789

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AFTER PERTINENT EXPERIMENTATION THE AUTHORS PERFORMED 36 OPERATIONS OF MERIDIANAL REINFORCEMENT OF THE SCLERA WITH AN AUTOTRANSPLANT FROM FEMORAL FASCIA LATA, TO PREVENT PROGRESSIVE MYOPIA. THE TECHNIQUE OF EXSECTING BANDS IN FEMORAL FASCIA LATA AND A MODIFIED PROCEDURE OF ITS TRANSPLANTATION ONTO THE EYEBALL AFTER M. M. SHEVELEV AND KURTIN ARE DESCRIBED IN DETAIL. FOLLOW UP OBSERVATIONS OF PATIENTS OPERATED UPON (LASTING FROM 4 TO 28 MONTHS) SHOWED MYOPIA TO HAVE DIMINISHED SKIASCOPICALLY BY 1-2.0 D IN 12 PATIENTS (13 EYES), THE REMAINING ONES EXHIBITING NO PROGRESSIVE DETERIORATION WITHIN THIS PERIOD OF OBSERVATION. VISUAL ACUITY ROSE IN 20 PATIENTS. ALTHOUGH THE AUTHORS DO NOT CALL IN QUESTION THE VALIDITY OF THE IDEA ENVISAGING REINFORCEMENT OF THE SCLERA IN PROGRESSIVE MYOPIA, AS SUCH, THEY FEEL THAT ITS TECHNIQUE REQUIRES FURTHER IMPROVEMENT.

USSR

PANFILOV, O. P., Khabarovsk State Institute of Physical Culture,
~~Khabarovsk~~

"The Relationship Between the Sensitivity of the Vestibular and
Motor Analysors and the Stability of Upright Standing in
Children Aged 8-17 Years"

Moscow, Teoriya i Praktika Fizicheskoy Kul'tury, Vol 34, No 1,
Jan 71, pp 53-56

Abstract: The relationship between the sensitivity of the vestibular analyzor, the stability of standing in an upright position, autonomic reflexes, and the duration of nystagmus following rotation were studied in subjects 8-17 yrs old of both sexes. Tests were also carried out on adult male athletes. In children not engaged in regular athletic training, the increase in the stability of upright standing upon vestibular stimulation that developed with increasing age was accompanied by an increase in the threshold of excitation of the vestibular analyzor, while in children so engaged the increase in stability took

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USSR

PANFILOV, O. P., Teoriya i Praktika Fizicheskoy Kul'tury, Vol 34,
No 1, Jan 71, pp 53-56

place against the background of a low excitation threshold of the vestibular analyzor. Simultaneous excitation of the vestibular and motor analysors in muscular effort accompanied by stimulation of the vestibular analyzor increased the maximum physical strength and static endurance in muscular effort, lowered the level of vestibulosomatic reactions, and increased the sensitivity of the vestibular analyzor, thus facilitating the performance of the task requiring muscular effort. With increasing age the duration of nystagmus increased in children not undergoing athletic training. This was a manifestation of increased reactivity of the central nervous system. On the other hand, systematic physical exercise (athletic training) lowered this reactivity, as indicated by a tendency toward a decrease in the duration of nystagmus. The results indicated that proprioceptive stimuli inhibit simultaneous vestibular reactions and are reinforced by the latter. The mutual effects

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USSR

PANFILOV, P. P., Teoriya i Praktika Fizicheskoy Kul'tury,
Vol 34, No 1, Jan 71, pp 53-56

which the motor and vestibular analysor exert on each other explain why athletes who exhibit a low degree of vestibular stability accompanied by a high sensitivity of the latter perform well tasks under conditions that involve multiple accelerations.

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METALLURGY

5685 C1321 20 Ed. 74

LOW-TEMPERATURE PLASMA AND METAL REFINING PROCESSES

Article by: M. V. Pavlov, A. A. Filov, Moscow, Platzenyaya Prokossy, Metallurgicheskii Institut, Materialy, Russian, 1973, pp 207-214

Interest in using low-temperature plasma as a source of heat and as a chemically active medium for solving problems of metallurgical technology has increased among metallurgists in recent years. The number of research organizations that are working on problems of plasma metallurgy has increased, both in the USSR and abroad. The number of publications, patents and copyrights related to this field is steadily increasing. Various plasma methods have been proposed for producing metals in powder and compact form by reducing their compounds, for producing oxides, carbides and nitrides of metals, for thermal decomposition of ores, for reheating of metals and alloys, etc. [1, 2, 3]. Unfortunately, many of the metallurgical processes that have been tried under laboratory conditions have not yet gained industrial acceptance. The reasons for this are, on the one hand, the insufficient development of plasma technology as a whole and, on the other hand, the insufficient development of specific conditions of high-temperature high-speed processes under the technology, to which is attached particularly great importance of the include dosing, mixing, hardening, vacuumation products from the reactor, etc. Theoretical problems that are of great practical importance and which require solutions are the kinetics of plasma chemical reactions, problems of heat- and mass exchange, theory of condensation and coagulation. It may be said at this very time that there is an independent field of metallurgy is developing, oriented toward the utilization of low-temperature plasma.

The number of studies that have been done in the field of plasma metallurgy is evidence that efforts are being made to use plasma in most metallurgical processes. Such a broad approach carries the risk of the loss of perspective. The correct orientation requires careful evaluation of the advantages that plasma heating has over other heat sources, and a clearer understanding of the reasons for using low-temperature plasma to solve metallurgical problems.

(2)

USSR

BELOUSOVA, I. M., PANFILOV, V. G.

"Experimental Study of the Pulse Operation of a Sectional Laser Consisting of Heterogeneous Elements"

Minsk, Zhurnal Prikladnoy Spektroskopii, June 1970, pp 1012-1018

Abstract: A study was made of the operation of a sectional laser with a helium-neon master oscillator operating in a pulse mode on a wave length of 0.0621μ and a neodymium glass tandem amplifier. Results of a study of the pulse oscillation of a master helium-neon laser with competing transitions with a common upper level are presented.

It was shown that the oscillation of a helium-neon laser on a wave length of 0.0621μ can be obtained with a selective resonator and specified conditions for the pulse discharge with respect to composition of the mixture and intensity of the excitation. It was demonstrated that the maximum amplification for a tandem amplifier is attained with pumping levels and delay time of the signal of the master oscillator relative to the amplifier for

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USSR

BELOUSOVA, I. M., et al, Zhurnal Prikladnoy Spektroskopii, June 1970, pp 1012-1018

which the peak power output of the neodymium glass operating in the oscillation mode is a maximum. The maximum amplification was 6 db for KGSS-7 glass, $L = 80$ mm with pumping of 432 joules. The angular divergence of the sectional laser was 8-10 minutes of arc, corresponding closely to the angular divergence of the master oscillator.

The article includes 5 illustrations. There are 13 references.

Originally submitted for publication 7 April 1969. Revised and resubmitted 10 December 1969.

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1/2 019 UNCLASSIFIED PROCESSING DATE--020CT70
TITLE--KINETICS OF CHLORINE DIOXIDE FORMATION AND CONSUMPTION DURING THE
THERMAL GAS PHASE DECOMPOSITION OF PERCHLORIC ACID -U-
AUTHOR--(02)-GRITSAN, V.I., PANIFILOV, V.N.
COUNTRY OF INFO--USSR
SOURCE--KINET. KATAL. 1970, 11(1), 235-8
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--ELECTRON PARAMAGNETIC RESONANCE, CHEMICAL REACTION RATE,
PERCHLORIC ACID, OXIDE, THERMAL DECOMPOSITION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1989/0759 STEP NO--UR/0195/70/011/001/0235/0238
CIRC ACCESSION NO--AP0107301
UNCLASSIFIED

2/2 019

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0107301

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RATE OF CLO SUB2 FORMATION DURING A GASEOUS PHASE THERMAL DECOMP. OF HCLO SUB4 AT 230-440DEGREES WAS DETD. BY USING EPR. CLO SUB2 IS AN INTERMEDIATE IN CHLO SUB4 DECOMP. AND RATE CONSTS. OF ITS FORMATION FROM HCLO SUB4 AND ITS DECOMP. TO THE FINAL PRODUCTS ARE: AT 440DEGREES, 8.5 AND 79 SEC NEGATIVE1, RESP. AT 350-400DEGREES, THE RATE CONST. (K SUB1) OF CLO SUB2 FORMATION IS: K SUB1 EQUALS 5.8 TIMES 10 PRIME13 EXP(NEGATIVE 45,000-RT) SEC PRIME NEGATIVE1. AT 200-350DEGREES, THIS REACTION DEPENDS GREATLY ON THE SURFACE NATURE OF THE REACTION VESSEL.

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2/2 015

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0140796

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN THE TYPICAL REACTION OF NUCLEOPHILIC SUBSTITUTION WITH A NO. OF AROMATIC NITRO DERIVS. I (R EQUALS NO SUB2, R PRIME1 EQUALS H), R PRIME2 EQUALS F, CL, BR, NO SUB2, OME, SME, SCF SUB3, SO SUB2 ME; I (R EQUALS CL, R PRIME1 EQUALS NO SUB2), AND I (R EQUALS OME, R PRIME1 EQUALS NO SUB2). R PRIME2 EQUALS NO SUB2, CF SUB3, SO SUB2 ME, SO SUB2 CF SUB3, RESP., THE FORMATION OF ANION RADICALS WAS OBSD. (EPR). THE TRANSEETHERIFICATION REACTION OF ALKYL ETHERS OF MONO AND POLYNITROPHENOLS IS ASSOCD. WITH THE FORMATION OF ANION RADICALS FROM THESE COMPOS. THAT REMAIN IN EQUIL. WITH STARTING PRODUCTS AND SIGMA COMPLEXES. SIMILARLY ANION RADICALS WERE OBSD. DURING THE REPLACEMENT OF HALOGEN OR NITRO SUBSTITUENTS. UNDER THESE CONDITIONS NITRO COMPOS. I (R EQUALS OME OR CL) FAIL TO PRODUCE ANION RADICALS IN DETECTABLE CONCNS. FACILITY: INST. ORG. KHIM., NOVOSIBIRSK, USSR.

UNCLASSIFIED

USSR

UDC: 550.348:627.81

PANFILOV, V. S., Candidate of Technical Sciences

"Relationship Between the Filling of Water Reservoirs and Earthquakes"

Moscow, Gidrotekhnicheskoye Stroitel'stvo, No 5, May 73, pp 43-47

Abstract: The author reviews the literature on the given problem and presents a new hypothesis on the manifestation of both natural and induced earthquakes. This hypothesis is based on the following: 1. Earthquakes can occur in a zone with sufficiently developed fissures, faults or other cavities ensuring water content in its free state (not capillary). If such cavities fill up with water to a depth significantly greater than that of the adjacent sections (with water in a capillary state) then hydrodynamic pressure is built up in the surrounding rocks and these are compressed. Due to this a potential reserve of earthquake energy is set up which is accounted for by the elastic portion of compression. 2. Water penetrating to a sufficiently great depth in comparison with the surrounding sections ends up under the effect of high temperatures. This changes the direction of the geothermal flow to the surface and concentrates this energy in the region of the fault. The hypothesis requires further work with respect to consideration of individual factors and its application to diverse real schemes.

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USSR

UDC 535.337

PANFILOV, V. V., SUBBOTIN, S. I., and VERESHCHAGIN, L. F., Academician of
~~the Academy of Sciences~~, USSR, Institute of High-Pressure Physics, Academy of
Sciences USSR

"Shifting of the Fundamental Absorption Edge of Gallium Arsenide Under the
Action of Hydrostatic Pressure"

Moscow, Doklady Akademii Nauk SSSR, Vol 196, No 3, 1971, pp 559-561

Abstract: Investigation of the shift of the fundamental absorption edge of
semiconductors with pressure permits determination of the change of the width
of the forbidden zone with pressure, and makes it possible to ascertain some
features of the zonal structure of the substances; in particular, this in-
vestigation is useful for identification of the symmetry of the very lowest
conductivity zones. Gallium arsenide GaAs was taken as the object of
investigation. The present article deals with a new attempt to measure the
value of the pressure coefficient for gallium arsenide in a broader range of
hydrostatic pressures than has previously been done by other researchers.
Two figures, 12 bibliographic entries.

1/1

1/2 024 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--CHANGES IN THE HUMAN POSTURE WHILE STANDING UNDER DECREASED
GRAVITATION CONDITIONS -U-
AUTHOR--(03)-BOGDANOV, V.A., GURFINKEL, V.S., PANFILOV, V.YE.
COUNTRY OF INFO--USSR
SOURCE--BIOFIZIKA 15(1): 179-183. ILLUS. 1970
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--PCSTURE, GRAVITATION EFFECT, MOON
CENTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/F-RAME--3003/0919 STEP NO--UR/0217/70/015/001/0179/0183
CIRC ACCESSION NO--AP0125984

UNCLASSIFIED

2/2 024

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0125984

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. UNDER SIMULATED SUBGRAVITY CONDITIONS THE POSTURE AND LOCOMOTION OF MAN ARE CHARACTERIZED BY A BENDING POSITION, THE DEGREE OF BENDING DEPENDING ON THE VALUE OF GRAVITY. THIS BENDING POSITION IS MAINTAINED DURING PROLONGED STAYS UNDER THE SAME CONDITIONS. IT CAN BE EXPECTED THAT A CONVENIENT STANCE FOR THE ASTRONAUT ON THE MOON SURFACE WILL BE CHARACTERIZED BY FLEXION IN THE LARGE JOINTS, WHILE THE LOCOMOTION ON THE MOON SURFACE WILL BE OF A DOWN BENDING CHARACTER.

UNCLASSIFIED

1/2 024

UNCLASSIFIED

PROCESSING DATE--30OCT70

TITLE--CHANGES IN MAN'S POSITION WHEN STANDING UNDER CONDITIONS OF LOW GRAVITY -U-

AUTHOR--(03)-BOGDANOV, V.A., GURFINKEL, V.S., PANFILOV, V.YE.

COUNTRY OF INFO--USSR

SOURCE--MOSCOW, BIOFIZIKA, NO 1, 1970, PP 179-183

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--GRAVITATION, HUMAN PHYSIOLOGY, POSTURE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--1998/0822

STEP NO--UR/0217/70/000/001/0179/0183

CIRC ACCESSION NO--AP0121454

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2/2 024

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0121454

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. UNDER CONDITIONS OF SIMULATED LOW GRAVITY, HUMAN SUBJECTS STOOD AND WALKED BENT OVER, THE DEGREE VARYING WITH THE AMOUNT OF GRAVITY. THIS POSTURE WAS MAINTAINED FOR A LONG TIME. THE REASON FOR THIS IS THAT THE "DECREASE IN BODY WEIGHT" UNDER THE EXPERIMENTAL CONDITIONS RESULTED IN A WEAKENING OF THE ANTIGRAVITY ACTIVITY OF THE EXTENSORS WITH RELATIVE PRESERVATION OF TENSION BY THE FLEXORS. DUE TO A BALANCING OF THE ANTAGONISTIC MUSCLES, THE SUBJECTS ASSUMED A NEW POSTURE CHARACTERIZED BY A FORWARD TILTING OF THE TRUNK AND FLEXION IN THE JOINTS. THE AUTHORS EXPECT A STOOPING POSITION WILL BE THE MOST COMFORTABLE FOR ASTRONAUTS WHEN STANDING OR WALKING ON THE MOON.

UNCLASSIFIED

MEDICINE

Aerospace Medicine

USSR

BOGDANOV, V. A., GURFINKEL', V. S., and PANFILOV, V. Ye.

"Changes in Man's Position When Standing Under Conditions of Low Gravity"

Moscow, Biofizika, No 1, 1970, pp 179-183

Abstract: Under conditions of simulated low gravity, human subjects stood and walked bent over, the degree varying with the amount of gravity. This posture was maintained for a long time. The reason for this is that the "decrease in body weight" under the experimental conditions resulted in a weakening of the antigravity activity of the extensors with relative preservation of tension by the flexors. Due to a balancing of the antagonistic muscles, the subjects assumed a new posture characterized by a forward tilting of the trunk and flexion in the joints. The authors expect a stooping position will be the most comfortable for astronauts when standing or walking on the moon.

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USSR

PANFILOV, V. Ye.

"Research on Biomechanical Parameters of Walking in Man. I. Time Structure of the Step"

Moscow, Biofizika, Vol 15, No 5, Sep/Oct 70, pp 927-931

Abstract: With the aid of podographic transmitters built into thin rubber overshoes and suitable amplification, the following time parameters of contact of the human sole with the surface in walking were determined: length of time of a double step and duration of the bifulcrum period, fulcrum phase, and transfer phase. The presence or absence of a bifulcrum period was additionally checked by means of a dynamogram recording. Healthy subjects walked a distance of approximately 30 m at step frequencies of 40-230 single steps/min. The step frequency was regulated by giving light-sound signals to the subjects. Treatment by the method of least squares of the experimental data obtained, which referred to more than 800 double steps, indicated that the relations of time parameters of walking to the step frequency could be expressed by hyperbolic equations. The results showed that, as indicated by the presence of a bifulcrum period, walking was possible up to 1/2

USSR

PANFILOV, V. Ye., Biofizika, Vol 15, No 5, Sep/Oct 70, pp 927-931

to a step frequency of 230 steps/min. It was established that transition from walking to voluntary running did not involve a critical value of the step frequency but rather a range of values which varied from individual to individual.

2/2

PANFILOV, Ye. A.

INFORMATION
SYSTEMS

SECRET
19 May 1988

ORGANIZATIONAL AND PROGRAM PROBLEMS OF CREATING A UNITED CLASSIFICATION
AND CODING SYSTEM FOR TECHNICAL-SCIENTIFIC INFORMATION
[Article by Ye. A. Panfilov, Director of the USSR State Scientific Center for
Scientific Information, Moscow, 125080, no date, 1987, 10 p.]

The development of a general state automatic data gathering and processing system for accounting, planning and control of the national economy facing again poses the problem of using modern computers. They allow with the creation of a technical and mathematical base, the creation of automation systems in beginning to play the primary role. Information incompleteness resulting in control system of different levels can become a serious obstacle to working with the introduction and efficient functioning of OAS.

For many years, understanding of the importance of a united information base for automatic control system has, above all, the creation of a united classification and coding system for technical-economic information in the country led to the fact that the development of systems of different levels were forced to improve original data classification and coding systems.

The creation of All-Union classifiers essentially was determined by the level of the developer and his position in the general state system of scientific agencies. However, in addition to the All-Union classifiers, scientific branch classifiers and enterprise classifiers were developed and are being developed which are not coordinated with each other and do not have united scientifically well-founded principles of construction. It must be noted that the performance of duplicate operations is not an exception even for higher level administrative agencies.

Thus, the classifiers of the USSR territorial administrative division are being developed in the Central Statistical Administration of the USSR, the USSR State Construction Committee and the USSR Ministry of Communications, the being developed in the USSR State Planning Committee and in the USSR Central Statistical Administration.

1. All-Union Scientific Research Institute of Technical Classification and Coding.

1/2 020

UNCLASSIFIED

PROCESSING DATE--11SEP70

TITLE--THE EMPLOYMENT OF RADIOISOTOPES IN THE COMPLEX DIAGNOSIS OF TUMORS
OF THE EYE AND ORBIT -U-

AUTHOR--DUBOVYY, YE.D., PAKHOMOVA, A.I., PANFILOVA, G.V., GORSKIY, L.A.,
SOKOLOV, V.N.

COUNTRY OF INFO--USSR

SOURCE--MEDITSINSKAYA RADIOLOGIYA, 1970, VOL 15, NR 3, PP 30-34

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--DIAGNOSTIC METHODS, MEDICAL NUCLEAR APPLICATION, TUMOR, EYE,
PHOSPHORUS ISOTOPE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--1985/1690

STEP NO--UR/0241/70/015/003/0030/0034

CIRC ACCESSION NO--AP0101745

UNCLASSIFIED

2/2 020

UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0101745

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHORS EXAMINED 351 PATIENTS WITH TUMORS OF THE EYE AND ORBIT, OF THIS NUMBER 296 WERE OPERATED UPON. THE FIRST GROUP INCLUDED 174 PATIENTS WITH INTRACULAR TUMORS. THESE PATIENTS WERE EXAMINED WITH THE AID OF RADIOPHOSPHORUS. IN LOCALIZATION OF THE TUMOR ON THE CONJUNCTIVA AND SCLERA A COINCIDENCE OF THE RESULTS OF RADIOMETRIC INVESTIGATIONS WITH CLINICAL AND HISTOLOGICAL DATA WAS NOTED IN 90 PER CENT OF CASES, WHEREAS IN MALIGNANT MELANOMA OF THE VASCULAR MEMBRANE AND CILIARY BODY, IN 83 PERCENT AND IN MALIGNANT TUMORS OF THE IRIS, IN 71 PER CENT OF CASES. IN LOCALIZATION OF TUMORS IN THE POSTERIOR REGION OF THE EYE TRANSCONJUNCTIVAL RADIOPHOSPHORUS DIAGNOSIS WAS CARRIED OUT. THE SECOND GROUP CONSISTED OF 122 PATIENTS WITH TUMORS AND TUMOR LIKE DISEASES OF THE ORBIT AND ADJACENT REGIONS. THIS GROUP OF PATIENTS WAS EXAMINED WITH THE AID OF P PRIME32, I PRIME131, DIP AND I PRIME125. A COINCIDENCE OF DATA OF RADIOISOTOPE DIAGNOSIS WITH THE RESULTS OF CLINICAL AND HISTOLOGICAL INVESTIGATIONS FOR BENIGN TUMORS WAS 89.4 PER CENT, FOR MALIGNANT, 86.6 PER CENT OF CASES.

UNCLASSIFIED

USSR

UDC 621.762.04:620.17 1

FEDORCHENKO, I.M., KORKH, L. M., PUGINA, L. I., ~~PANEILOVA, I. A.~~ and
RUDENKO, V. N., Institute of Problems of Material Science, Academy of
Sciences Ukrainian SSR

"Effect of Technological Factors on the Durability of Sulfidized Iron-
Graphite"

Kiev, Poroshkovaya metallurgiya, No 3, 1972, pp 99-105

Abstract: The strength properties of cermet materials after sintering are governed not only by the composition of the mixture but by a variety of technological factors as well. Varying the alloying efficiency of iron particles with carbon will almost double the strength of sulfidized iron-graphite; raising the dispersity of the starting powders four-fold may increase the material's strength by 30%; reducing the porosity from 30 to 1% will increase the strength characteristics of the material four to five times. Addition of zinc sulfide to alloy the particle contacts with zinc will raise the integral hardness by almost 30%. It has been established that the mechanism of strengthening cermet materials during plastic deformation is determined primarily by the material's initial porosity. (5 illustrations, 2 tables, 11 bibliographic references)

1/1

PANFILOVA, L. A.

SPRS 59268

6-73

21-16. THEORETICAL AND REAL LAWS OF FORMATION OF THIN SEMICONDUCTIVE LAYERS OF COMPLEX COMPOSITION MANUFACTURED BY THERMAL EVAPORATION IN A VACUUM
(Article by Yu. P. Orlov, L. E. Tarilin, Ye. O. Kurchavskaya, L. A. Panfilova, V. M. Lagodinskiy, Leningrad, November 1971, in: Symposium on Problems of Thin Films, Polymers and Semiconductors, Leningrad, 1971, Russian, 12-17 June 1972, p. 233)

The simplest method of manufacturing thin layers of complex composition comprising two components, for example, $As_2Se_3-Tl_2Se$, $CdSe-Ge$ is evaporation in a vacuum from one evaporator of liquid melts or mixtures from the solid phase.

The variations in the layer composition were calculated as a function of the proportion of evaporated melt. It was demonstrated experimentally (the $As_2Se_3-Tl_2Se$ melt, and so on) that the real laws of the formation of the layer composition are close to the calculated laws if convection mixing proposed by the calculation takes place in the evaporator.

The variations in composition of the layers as a function of the portion of the evaporated substance were calculated for sublimation of multicomponent mixtures. In the example of $PbS-S$ it was demonstrated that under real conditions the layer of material in the evaporator has significant resistance to evaporation. In the example of sublimation of a mixture of Sb_2S_3 and Se it was demonstrated that there is a qualitative correspondence between the theoretically calculated and real laws of formation of the layer composition.

The operating results permit determination of the evaporation conditions assuring the given nature of distribution of the components with respect to the thickness of the layers.

USSR

UDC 543.42

TRUKHANENKO, E. M., PANFILOVA, L. I., FAVORIN, V. N.

"Spectral Method of Measurement of Concentrations of Components in Helium-Neon Gas Mixture in Sealed Tube"

Minsk, Zhurnal Prikladnoy Spektroskopii, No 4, Apr 71, pp 614-618.

Abstract: A method is described for measuring the concentrations of helium and neon in a sealed tube in the range of change of total pressure of the mixture corrected to room temperature of 0.4-3 torr with ratios of helium to neon concentration of 3-10. The accuracy of the method and conditions of its application are studied. Some results of measurements of concentrations of helium and neon in sealed tubes are presented. The method is based on selection of several lines of neon and helium and determination of combinations of intensities of various lines such that the intensity functions are monotonic, while the distance between them in the graph scale selected is significantly greater than the accuracy of measurement.

USSR

UDC 616.988.25-022.395.42-084.4(470.51)

KUCHERUK, V. V., KORENBERG, YE. I., PANFILOVA, S. S., SHULEPOVA, T. G., SMIRNOV, A. V., and LEBEDEV, I. P., Laboratory of Medical Zoology, Institute of Epidemiology and Microbiology imeni N. F. Gamaleya, Academy of Sciences USSR, Moscow, and Republic Sanitary Epidemiological Station, Udmurt ASSR, Izhevsk

"Recent Results in the Control of Tickborne Encephalitis in the Udmurt ASSR"

Moscow, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 40, No 3, May/Jun 71, pp 275-283

Abstract: The annual incidence of tickborne encephalitis is high in the Udmurt ASSR. In some years, it was 18% of all recorded diseases. Data on the disease as it occurred from 1956 to 1965 were studied. The results of these studies led to a sharp reduction in incidence of the disease in the Udmurt ASSR. Statistical data on the disease level are presented in bar graphs for various regions over the 10-year period. Various forests in the area were characterized by their degree of epidemic danger, based on preliminary mapping of the occurrence and recurrence of infections. Subsequently, tick-extermination areas (amounting to 7% of the entire forest lands) were set aside and ticks eliminated by aerial spraying. Gamma-globulin prophylaxis and vaccination are recommended for the population living in areas in which tick eradication is difficult to achieve or impractical.

1/1

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USSR

UDC 547.574.241

LANKINA, T. A., PANFILOVA, Z. F., AMINOV, S. N., AND AKHEMEDOV, K. S.,
Institute of Chemistry, Academy of Sciences Uzbek SSSR

"Synthesis and Surface-Activity Characteristics of Glycol Esters of Alkyl-
phosphonic Acids"

Tashkent, Uzbekskiy Khimicheskiy Zhurnal , Vol 17, No 3, 1973, pp 55-57

Abstract: By the interaction of dichlorides of alkylphosphonic acids with
glycol in the presence of triethylamine in ether solutions at a temperature

$\leq 5^\circ$, esters $RP(O) \begin{pmatrix} OCH_2CH_2 \\ OCH_2CH_2 \end{pmatrix} O$ were synthesized, where $R = C_nH_{2n+1}$ and

$n = 6 - 14$. Cyclization of the diglycol esters which formed initially took
place during their distillation in vacuo. The esters with $n = 8 - 14$ showed
a high effectiveness as surface-active agents reducing the surface tension.

1/1

USSR

UDC 533.6.011:51

PANFILOVICH, V. B.

"Calculation of Mixed Subsonic - Supersonic Flow in a Curved Channel"

Kazan', Tr. Kazan. Aviats. In-ta (Works of Kazan' Aviation Institute), No 133, 1971, pp 30-36 (from Referativnyy Zhurnal-Aviatsionnyye i Raketnyye Dvigateli, No 2, Feb 72, Abstract No 2.34.4)

Translation: The article describes the calculation method of a mixed subsonic-supersonic flow in a curved channel. The method uses the basic gasdynamics equations for two-dimensional, isentropic, gas flow with no energy exchange. The equations are integrated numerically. Results of calculations by means of Minsk-22 computer and of experimental verification are given. 6 illustrations, 4 references.

1/1

USSR

UDC 533.6.011.35

PANFILOVICH, V. B., and SALAMASHKIN, V. A.

"Experimental Investigation of Gas Flow in a Curved Channel"

Kazan', Tr. Kazan. Aviats. In-ta (Works of Kazan' Aviation Institute), No 133, 1971, pp 57-61 (from Referativnyy Zhurnal-Aviatsionnyye i Raketnyye Dvigateli, No 2, Feb 72, Abstract No 2.34.5)

Translation: The article describes the experimental investigation of gas flow in a curved channel under choking condition. Flow coefficients and pressure recovery are determined. Recommendations for increasing the efficiency of such channels are given. 5 illustrations. 3 references.

1/1

- 19 -

172 020
TITLE—REACTION OF PHENYLACETYLENE WITH SOME ORGANIC ARSENIC COMPOUNDS —U—
AUTHOR—(03)—KUZMIN, K.I., PANFILOVICH, Z.U., GOLOVINA, L.S.
COUNTRY OF INFO—USSR
SOURCE—ZH. OBSHCH. KHIM. 1970, 40(3), 703
DATE PUBLISHED—70
SUBJECT AREAS—CHEMISTRY
TOPIC TAGS—ORGANIC ARSENIC COMPOUND, ACETYLENE HYDROCARBON, HEAT EFFECT
CONTROL MARKING—NO RESTRICTIONS
DOCUMENT CLASS—UNCLASSIFIED
PROXY REEL/FRAE—2000/0888
CIRC ACCESSION NO—AP0124551
STEP NO—UR/0079/70/040/003/0703/0703
UNCLASSIFIED

2/2 020
 CIRC ACCESSION NO--AP0124551 UNCLASSIFIED PROCESSING DATE--30OCT70
 ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. REACTION OF R SUB2 ASI WITH A 2
 FOLD EXCESS OF PHC TRIPLE BOND CH AND PYRIDINE BY PROLONGED HEATING ON A
 STEAM BATH GAVE R SUB2 ASC TRIPLE BOND CPH (R SHOWN): C SUB5 H SUB11,
 25PERCENT, B SUB1 164-7DEGREES, D SUB20 1.0598, N PRIME20 SUBD 1.5480;
 SIMILAR REACTION WITH R SUB2 ASOAC IN THE PRESENCE OF PYRIDINE OR WITH R
 SUB2 ASDET WITHOUT THE BASE ALSO GAVE: R SUB2 ASC TRIPLE BOND CPH AND
 EITHER ACOH OR ETOH, RESP. PRODUCTS WITH R EQUALS BU OR C SUB5 H SUB4
 WERE PREPD. BU SUB2 ASOAC B SUB1 85-7DEGREES, 1.1158, 1.4720; (C SUB5 H
 SUB11) SUB2 ASOAC B SUB1 106-7DEGREES; 1.0705, 1.4670. THESE WERE
 PREPD. FROM R SUB2 ASOBU AND AC SUB2 O.

UNCLASSIFIED

USSR

UDC 547.342

KUZ'MIN, K.I., AND PANFILOVICH, Z. U., Kazan' Chemical Technological Institute imeni S. M. Kirov, Kazan, Ministry of Higher and Secondary Specialized Education RSFSR

"Synthesis and Properties of Bis(dialkylarsine)diacetylenes"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 5, May 70, pp 1111-1112

Abstract: The authors synthesized five previously undescribed bis(dialkylarsine)diacetylenes by the interaction of dialkyliodoarsine and dimagnesium dibromodiacetylene. A study of the UV spectra of the resultant compounds indicates that the p-electrons of arsenic take part in the conjugation with the system of triple bonds.

1/1

- 34 -

P Forensic Medicine

USSR

UDC 340.6(47)

PANFLILENKO, O. A., Scientific Research Institute of Forensic Medicine, Ministry of Health USSR

"The Status of Soviet Forensic Medicine and Some Essential Steps for Its Continued Development"

Moscow, Sudebno-Meditsinskaya Ekspertiza, No 2, 1970, pp 3-7

Abstract: The Soviet Union now has over 4000 experts in forensic medicine and more than 700 technicians serving in 134 specialized laboratories throughout the country. Up-to-date biological, physicochemical, and chemical methods of investigation are widely employed. X-ray machines, spectrophotometers, gas chromatographs, polarizing microscopes, etc. are in routine use. Despite the high caliber of the personnel, forensic medicine is not progressing as fast as it should because of limited facilities, staff, and above all, lack of coordination of research efforts. Recognizing the importance of overcoming this weakness, the country's leading research center, the Scientific Research Institute of Forensic Medicine, Ministry of Health USSR, several years ago appointed a problems commission to draw up long-range research plans, first for 1966-1970 and then for the 1971-1975 period. The plans were duly formulated, recommendations made, etc., but little has been accomplished in the way of implementation because the commission was not given executive authority.

1/1

USSR

UDC 621.357.7:669.258

ARMYANOV, ST., VITKOVA, ST., PANGAROV, N.

"Dependence of the Magnetic Characteristics of Electrolytic Cobalt Coating on the Texture and Phase Composition"

V sb. Nauch.-tekhn. konf. po probl. Razrab. mer zashchity met. ot korrozii, 1971. Tezisy dokl. vyp. 2. Sekts. 4-5 (Scientific and Technical Conference on the Problems of the Development of Measures for Protection of Metals from Corrosion. 1971. Topics of Reports. Vyp. 2. Sections 4-5 -- collection of works), Moscow, 1971, pp 101-104 (from RZh-Khimiya, No 6 (II), Jun 72, Abstract No 6L300)

Translation: It was established that the magnitude of the coercive force (H_c) of Co deposits depends both on the orientation of the α -Co crystals and on the amount of β -phase of the Co in the deposit. For the orientation of the α -Co $[0001]H$, and the rectangularity of the hysteresis loop decreased with an increase in H_c perfection of the texture since in this case the axis of easy magnetization lay perpendicular to the plane of the plate. With a texture $[1120]$ of α -Co and $[110]$ of β -Co respectively, H_c increased with a decrease in the amount of Co phase since the magnetic anisotropy constant of α -Co is higher than that of β -Co.

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USSR.

UDC 621.357.7:669.248

VITKOVA, ST. D., PANGAROV, N. A.

"Effect of Adsorption of Halide Ions on the Variation of the Type of Texture of Nickel Galvanic Coatings"

V sb. Nauch.-tekhn. konf. po probl. Razrab. mer. zashchity met. korrozii, 1971. Tezisy dokl. Vyp. 2, Sekts. 4-5 (Scientific and Technical Conference on the Problems of the Development of Measures for Protection of Metals from Corrosion. 1971. Topics of Reports. Vyp. 2. Sections 4-5 -- collection of works), Moscow, 1971, pp 112-115 (from RZh-Khimiya, No 6 (II), Jun 72, Abstract No 6L301)

Translation: A study was made of the effect of adsorption of Cl^- , Br^- and I^- on the predominant orientation of Ni crystals in electrolytically deposited layers from a solution containing 280 grams/liter of $\text{NiSO}_4 \cdot 7\text{H}_2\text{O}$, 30 H_3BO_3 with additions of KCl ($1 \cdot 10^{-3}$ - $3 \cdot 10^{-1}$ M), KBr ($1 \cdot 10^{-3}$ - $4 \cdot 10^{-1}$ M) and KI ($1 \cdot 10^{-5}$ - $1 \cdot 10^{-3}$ M). The deposition took place at 50° with 1 amp/dm^2 and pH 4.5. It was found that as a result of adsorption of halide ions, the formation of two-dimensional nucleating centers of Ni with [211] orientation becomes possible. Thus, the [211] texture can be both the result of twinning processes and direct nucleation of two-dimensional nucleating centers. The texture of the Ni deposits varied with an increase in concentration of the halide ions the adsorption of which disturbed the previously established sequence of variation of textures

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• USSR:

VITKOVA, ST. D., et al., Nauch.-tekhn. konf. po probl. Razrab. mer. zashchity met. korrozii, 1971. Texisy dokl. Vyp. 2, Sekts. 4-5, Moscow, 1971, pp 112-115

with growth of the cathode overvoltage. Under the adsorption conditions, the texture axis varied with an increase in cathode overvoltage according to the following series: [111], [110] and [100].

2/2

- 15 -

USSR

UDC: 621.317.3(088.8)

PANGONIS, L. I., Institute of Radio Engineering and Electronics, Academy of Sciences of the USSR

"A Method of Measuring the Amplitudes of Wave Modes in a Multiple-Mode Waveguide"

USSR Author's Certificate No 266876, filed 16 Aug 68, published 27 Jul 70 (from RZh-Radiotekhnika, No 2, Feb 71, Abstract No 2A326 P)

Translation: The author points out the low resolution of the method for determining modes in a multiple-mode waveguide based on analyzing the patterns of emission from the open end of the guide with the plane of the aperture perpendicular to the waveguide axis. In the proposed method, measurement accuracy is improved by making the open end of the waveguide in the form of a flat cutoff of the waveguide walls at an angle to the longitudinal axis which is equal to or slightly less than (e. g. by 1-5') the Brillouin angle for a lower mode. E. L.

1/1

- 106 -

USSR

LYAKHOVICH, L. S., VOROSHININ, L. G., SHCHERBAKOV, E. D., and PANICH, G. G.
"Siliconizing of metals and Alloys"

Silitsirovaniye metallov i splavov (English version above), Minsk, Nauka i
Tekhnika Press, 1972, 280 pp

Translation of Foreword: With the broad application of high temperatures and pressures, corrosive media, vacuum, etc. in modern machines, parts and units must frequently meet a combination of demands which cannot or should not be met from the economic standpoint by volumetric alloying of steels or creation of new alloys. In this case, the solution to the problem is frequently the creation of various protective coatings on the surfaces of products.

Diffusion coatings play a leading role in this respect. Chemical and heat treatment radically changes the physical and chemical properties of surface layers, i.e., of those layers in which breakdown processes are primarily developed.

This book analyzes the methods and technological principles of siliconizing of ironcarbon alloys, and the regularities of formation, structure, and properties of diffusion layers. Silicide coatings on steels and alloys allow significant increases in corrosion resistance, high-temperature oxidation resistance, and hardness and wear resistance, and sometimes allow these pro-

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USSR

LYAKHOVICH, L. S., et al., *Silitsirovaniye metallov i splavov*, Minsk, Nauka i Tekhnika Press, 1972, 280 pp

perties to be produced in favorable combinations.

Siliconizing is presently used very little in industry. Probably the main reason for this is the lack of suitable technological methods for applying diffusion coatings, as well as the limited information available on the properties of these coatings. Therefore, the authors have turned their attention to the development and description of new methods of saturation and compositions of saturating mixtures and to the study and systematization of the properties of silicon-containing diffusion coatings on metals and alloys.

Due to the limited volume of this monograph, the authors were not able to describe fully the problems of siliconizing of nonferrous and refractory metals, so important from the practical point of view. However, the general principles of formation of diffusion coatings and compositions of saturating mixtures presented in the work can be used for the treatment of nonferrous and refractory metals and alloys.

This book also discusses certain little-studied problems of the thermodynamics and mechanism of formation of diffusion coatings by electrolytic and liquid saturation of metals and alloys from melts of salts and oxides. The authors hope that these materials will be useful in the development and study of processes of diffusion saturation with other elements.

2/6

- 5 -

USSR

LYAKHOVICH, L. S., VOROSHIN, L. G., SHCHERBAKOV, E. D., and PANICH, G. G.,
Silitsirovaniye metallov i splavov, Minsk, Nauka i Tekhnika Press, 1972,
280 pp

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USSR

LYAKHOVICH, L. S., VOROSHIN, L. G., SHCHERBZKOV, E. D., and PANICH, G. G.,
Silitsirovaniye metallov i splavov, Minak, Nauka i Tekhnika Press, 1972,
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LYAKHOVICH, L. S., VOROSHIN, L. G., SHCHERBAKOV, E. D., and PANICH, G. G.,
Silitsirovaniye metallov i splavov, Minsk i Tekhnika Press, 1972, 280 pp

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LYAKHOVICH, L. S., VOROSHNIIN, L. G., SHCHERBAKOV, E. D., and PANICH, G. G.,
Silitsirovaniye metallov i splavov, Minsk, Nauka i Tekhnika Press, 1972,
280 pp

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Industrial Application of Siliconizing

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Radiation Chemistry

USSR

UDC 541.182.65:541.15

MAZINA, G. R., PANICH, R. M., USTINOVA, Z. M., VOYUTSKIY, S. S., FODIMAN, N. M.,
KRATSHTEYN, P. N., and KUZNETSOVA, G. I., Moscow Institute of Fine Chemical
Technology imeni M. V. Lomonosov

"Effect of Ionizing Radiation on the Properties of Fluorine-containing
Copolymer Latex"

Moscow, Kolloidnyy Zhurnal, Vol 33, No 5, Sep-Oct 71, pp 690-692

Abstract: The effect of ionizing radiation on the properties of fluorine-con-
taining copolymer latex was studied by using Co^{60} as a source, the radiation
dose ranging from 0.25 to 50 Mrad. The pH of the irradiated copolymer latex
became lower, as did the resistance to electrolytes. After irradiation the
coagulation threshold of the latex was also lowered with simultaneous coagula-
tion of globules and intraglobular crosslinking of the polymer. Increased
radiation dose resulted in greater three-dimensional lattice density. Irradia-
tion of the latex does not lead to formation of intraglobular chemical bonds
and to better film formation.

1/1

1/2 030 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--RESEARCH IN THE COLLOID CHEMISTRY DEPARTMENT AT THE M. V. LOMONOSOV
INSTITUTE OF FINE CHEMICAL TECHNOLOGY, MOSCOW -U-
AUTHOR-(02)-VOYUTSKIY, S.S., PANICH, R.N.
COUNTRY OF INFO--USSR
SOURCE--KAUCH. REZINA 1970, 29(4), 42-4
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY, MATERIALS
TOPIC TAGS--COLLOID, SCIENTIFIC R AND D, LATEX, POLYMER, SURFACE ACTIVE
AGENT, TEXTILE, ADHESION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1997/0449 STEP NO--UR/0138/70/029/004/0042/0044
CIRC ACCESSION NO--AP0119385
UNCLASSIFIED

2/2 030

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119385

ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. A REVIEW WITH 31 REFS. TOPICS
INCLUDE STABILITY AND COAGULATION OF LATEXES AND POLYMER DISPERSIONS
CONTG. NONIONIZED SURFACE ACTIVE AGENTS AND MECHANISMS OF FILM FORMATION
FROM LATEXES AND DISPERSIONS, LATEX IMPREGNATION OF TEXTILES, AND
ADHESION. FACILITY: MOSK. INST. TONKOI KHIM. TEKHNOL. IM.
LOMONOSOVA, MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 621.357.12.035.2

KOROVIN, N. V., GRISHAYENKOV, B. G., PANICH, R. II., GAVRILOV, B. A., RYABUKHIN, A. G.

"Some Problems of the Theory and Results of Studies of the Operation of Porous Electrodes in Devices for the Electrolysis of Aqueous Solutions of Bases"

Tr. Kurgan. mashinostroit. in-ta (Works of the Kurgan Machine Building Institute), 1971, vyp. 17, pp 42-49 (from RZh-Khimiya, No 6 (II), Jun 72, Abstract No 6L257)

Translation: A study was made of some of the operating characteristics of liquid-gas porous electrodes manufactured by the cement procedure from carbonyl Ni powder (particle size 3-6 μ) and used in devices for electrolysis of aqueous solutions of bases. A method is proposed for determining the gas content of the operating porous electrodes by the flow rate of the electrolyte. The gas content is defined as a function of the structure of the electrode and the polarizing current density. It was demonstrated that biporous electrodes with a porosity of 70-75% with a large pore diameter of $\approx 60-80 \mu$ and fine pores of 6-8 μ are optimal. By comparing the functions for the activity of the electrode and its gas content as a function of the porosity, the effect of the gas content and the porosity on the magnitude of the effective electrical conductivity of the electrolyte in the pores of the electrode was determined. The possibility of predicting the activity of the Ni electrode is demonstrated.

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USSR

PANICHEV, N. A., et al., Zhurnal Prikladnoy Spektroskopii, Vol XVIII, No 5, 1973, pp 772-776

A comparison of the detection limits of the scintillation method of recording in the emission and atom absorption methods of analysis performed for Cu and Ag also showed that the latter is more sensitive. The result is explained by the higher level of spectral noise for measuring emission radiation by comparison with the number of nonselective absorption pulses.

2/2

USSR

PANICHEV, N. A., PRUDNIKOV, Ye. D., TURKIN, Yu. I., SHVEDOVA, I. V.
 "Scintillation Method of Recording in the Atom Absorption Method of Spectral Analysis"

Minsk, Zhurnal Prikladnoy Spektroskopii, Vol XVIII, No 5, 1973, pp 772-776

Abstract: The scintillation method of recording in the atom absorption technique for spectral analysis is based on recording the absorption pulses of the analytical line caused by evaporation in an atomizing source of individual particles the composition of which includes a defined element. In the example of analyzing Zn, Cd, Cu, Pb, He, and Au the possibility of direct analysis of these elements in powdered samples by blowing them into an air-acetylene flame in an oxygen stream with a relative sensitivity of 10^{-5} to $10^{-6}\%$ is demonstrated. A study was made of the effect of the number of particles containing the defined element on the efficiency of the scintillation recording. The method is highly promising for evaluating the form of the concentration distribution of the elements in the sample composition and analysis of an object with a nonuniform concentration (rocks, industrial aerosols). A block diagram of the experimental device and the tabulated experimental data are presented.

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1/2 044 UNCLASSIFIED
TITLE--SPECTRAL ANALYSIS OF POWDERED SAMPLES IN A FLAME BY USING A SCINTILLATION METHOD OF RECORDING -U-
AUTHOR--(02)-PANICHEV, N.A., TURKIN, YU.I. P
COUNTRY OF INFO--USSR
SOURCE--ZH. PRIKL. SPEKTROSK. 1970, 12(2) 213-16
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY, MATERIALS
TOPIC TAGS--FLAME PHOTOMETRY, SCINTILLATION COUNTER, LITHIUM, CESIUM, STRONTIUM, GALLIUM, METAL POWDER/(U)ISP51 SPECTROGRAPH
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3001/2091 STEP NO--UR/0368/70/012/002/0213/0216
CIRC ACCESSION NO--AP0127464
UNCLASSIFIED

2/2 044

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0127464

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A SCINTILLATION METHOD OF RECORDING IN AIR; C SUB2 H SUB2 FLAME IS USED FOR POWD. SAMPLES FOR DIRECT SEQUENTIAL DETNS. OF LI, CS, SR, AND GA. SAMPLES OF 3, 10, 25, AND 44 MU M PARTICLE SIZE WERE MIXED WITH CORRESPONDING SIO SUB2 PARTICLES AND THE SPECTRA WERE MEASURED WITH A ISP 51 SPECTROGRAPH. THE FOLLOWING ANAL. LINES AND SENSITIVITIES WERE MEASURED: LI 6707.8, 10 PRIME NEGATIVE6, CS 4555.4, 10 PRIME NEGATIVE4, SR 4607.3, 10 PRIME NEGATIVE4, AND GA 4172.8 ANGSTROM, 5 TIMES 10 PRIME NEGATIVE5PERCENT. RELATIVE STD. DERIVATION FOR THESE CONCNS. WAS 30PERCENT (FOR 50 DETNS.); BUT INCREASING CONCNS. TO 0.01PERCENT LOWERED IT TO THE 6-8PERCENT RANGE. THE RESULTS OBTAINED BY USING THE SPECTRAL METHOD CORRESPONDED QUITE WELL WITH THOSE OBTAINED BY FLAME PHOTOMETRY. BY THIS METHOD PRODUCTIVITY CAN BE GREATLY INCREASED.

UNCLASSIFIED

PANICHKIN, Yu. N.

PROBLEM OF EXTRAPOLATING STRESS-RUPTURE STRENGTH TEST RESULTS

UDC 539.4

(Article by V. V. Adnedykh, Yu. N. Panichkin, Leningrad, Moscow, Central Scientific Research Planning and Design Institute for Machine Building I. I. Polzunov, Central Scientific Institute of Machine Building Technology, Kiev, Problem Prochnosti, Moscow, No 2, 1972, submitted 5 May 1971, pp 12-16)

The stress-rupture strength is one of the basic characteristics of heat-resistant materials. The main difficulty in determining stress-rupture strength results is the necessity for extrapolating the stress-rupture strength test results by an order of magnitude, exceeding the duration of the laboratory strength and rupture tests, to the complex monotonic variation of their strength, plasticity and structure and the variety of mechanisms of deformation and rupture as a function of temperature and time which are confirmed by the results of testing heat-resistant austenitic materials in a wide temperature-time interval (the test time and temperature are 10^7 sec to 10^6 hours and 20-1400° C respectively, [1-4]).

Based on an analysis of the results of the above-indicated studies made by one of the authors of this paper and an investigation of numerous extrapolation techniques [6], in reference [5] a generalized parametric extrapolation technique was proposed for the implementation of which it is necessary to test the steel and alloy not only for operational but also for higher temperature strength in order to obtain information about the processes determining the high-temperature strength of the material during the operating service life.

The generalized parametric method is based on the relations

$$\sigma = \frac{1}{K} \left(\frac{t}{t_0} \right)^{-\frac{1}{n}} \left(\frac{t}{t_0} \right)^{\frac{1}{m}}$$

$$b(t) = \frac{Q(t)}{K} \cdot \frac{1}{n} \cdot \frac{1}{m}$$

where T is temperature, K is the time before rupture, α and β are constants, and the value of $b(t)$ proportional to the provisional energy of activation of the rupture $Q(t)$ determining the slope of the $\sigma - \log t$ lines in the coordinates $\log t - 1/T$ is used as the basic parameter.

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160204 33

1/2 015 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--EFFECT OF ANTICOAGULANTS ON THE RESISTANCE AND PERMEABILITY OF THE
VASCULAR WALL IN PATIENTS WITH MYOCARDIAL INFARCTION -U-
AUTHOR--PANICHKINA, V.I.
COUNTRY OF INFO--USSR
SOURCE--VRACHEBNOYE DELO, 1970, NR 5, PP 21-23
DATE PUBLISHED--70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--ANTICOAGULANT DRUG, BLOOD VESSEL, MYOCARDIUM, CAPILLARY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3002/1734 STEP NO--UR/0475/70/000/005/0021/0023
CIRC ACCESSION NO--AP0129102

UNCLASSIFIED

2/2 015

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0129102

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RESISTANCE AND PERMEABILITY OF THE VASCULAR WALL WAS STUDIED IN 42 PATIENTS WITH MYOCARDIAL INFARCTION BEFORE AND DURING TREATMENT WITH ANTICOAGULANTS OF INDIRECT ACTION. BEFORE ANTICOAGULANT TREATMENT DECREASED RESISTANCE AND INCREASED PERMEABILITY OF THE CAPILLARY WALL WAS FOUND IN 12 OF THESE PATIENTS. DURING TREATMENT SIGNIFICANT CHANGES IN BOTH RESISTANCE AND PERMEABILITY HAVE BEEN FOUND. THAT IS WHY AGENTS STRENGTHENING THE VASCULAR WALL ARE INDICATED SIMULTANEOUSLY WITH ANTICOAGULANTS IN THE ABOVE PATIENTS.

FACILITY: KAFEDRA GOSPITAL'NOY TERAPII, VOROSHILOVGRADSKOGO MEDITSINSKOGO INSTITUTA.

UNCLASSIFIED

USSR .

UDC: 621.762.27

KHRIYENKO, A. F., SKOROKHOD, V. V. and PANICHKINA, V. V., Institute of Problems of the Material Science, Academy of Sciences Ukrainian SSR

"Hydrogen Effect on Certain Properties of Electrolytic Nickel Films"

Kiev, Poroshkovaya metallurgiya, No 12, Dec 71, pp 17-20

Abstract: This study concerns the effect of the hydrogen dissolved in nickel on the defectiveness of crystal structures, recovery processes, and pre-crystallization changes in the fine crystalline structure of nickel powders. The test specimens included: electrolytic nickel powder, autoclave nickel, and electrolytic nickel foil. The study covered the effects of electrolytic conditions and the pH of the solutions on the amount of hydrogen dissolved in nickel, the kinetics of hydrogen liberation, and changes in conductivity and hardness with annealing temperature. An increase in hydrogen concentration appears to reduce the energy of formation of packing defects and increase both the resistivity and hardness (HV). The increase in resistivity is attributed either to the formation of proton gas clouds (in the nickel lattice) inhibiting the movement of

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USSR

KHRIYENKO, A. F., et al, Poroshkovaya metallurgiya, No 12, Dec 71, pp 17-20

conduction electrons or to the initiation of a new phase with conductance similar to that of pure nickel. It is suggested that dissolved hydrogen may significantly affect certain physical properties of powders and foils at temperatures preceding its complete liberation. (4 illustrations, 9 bibliographic references).

2/2

1/2 019 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--SIMPLIFIED METHOD FOR MEASURING A SPECIFIC SURFACE BASED ON THE
PHYSICAL ADSORPTION OF GASES -U-
AUTHOR-(02)-UVAROVA, I.V., PANICHKINA, V.V.
COUNTRY OF INFO--USSR
SOURCE--ZAVOD. LAB. 1970, 36(3), 306
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--GAS ADSORPTION, NITROGEN, TUNGSTEN, MOLYBDENUM, PALLADIUM,
IRON
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1996/1887 STEP NO--UR/0032/70/036/003/0306/0306
CIRC ACCESSION NO--AP0118849
UNCLASSIFIED

2/2 019

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0118849

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE GAS ADSORPTION METHOD FOR
DETG. THE SP. SURFACE USUALLY REQUIRES 5-6 POINTS FOR THE CONSTRUCTION
OF THE ADSORPTION ISOTHERM. EXTENSIVE EXPTS. WITH THE ADSORPTION OF N
ON W, MO, PD, AND FE AT MINUS 195DEGREES SHOWED THAT RELIABLE RESULTS
ARE OBTAINED WITH THE ADSORPTION CURVE DRAWN FROM 1 POINT CORRESPONDING
TO THE FORMATION OF A MONOMOL. LAYER. FACILITY: INST. PROBL.
MATERIALOVED., KIEV, USSR.

UNCLASSIFIED

1/3 , 026 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--HISTOCHEMICAL CHARACTERISTICS OF LEPROUS LESIONS OF THE BUCCAL
MUCOSA --U-
AUTHOR--(03)--PANIKAROVSKIY, V.V., GRIGORYAN, A.S., BUSYGINA, M.V.
COUNTRY OF INFO--USSR
SOURCE--VESTNIK DERMATOLOGII I VENEROLOGII, 1970, NR 4, PP 32-38
DATE PUBLISHED--70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--HISTOCHEMISTRY, LEPROSY, COLLAGEN, MACROPHAGE, BLOOD VESSEL,
TUMOR, GLYCOGEN, CYTOPLASM, MOUTH
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--2000/0438 STEP NO--UR/0206/70/000/004/0032/0038
CIRC ACCESSION NO--AP0124183
UNCLASSIFIED

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UNCLASSIFIED

PROCESSING DATE—30OCT70

CIRC ACCESSION NO—AP0124183

ABSTRACT/EXTRACT—(U) GP-0- ABSTRACT. WHEN THE BUCCAL MUCOSE IS AFFECTED IN LEPROSY, THE LEPROMATOUS PROCESS INVOLVES ITS DIFFERENT COMPONENTS. ELEMENTS OF THE CONNECTIVE TISSUE UNDERGO DESTRUCTION, PARTICULARLY FIBRILLAR STRUCTURES. AT THE PEAK OF THE LEPROMATOUS PROCESS FRAGMENTATION AND LYSIS OF COLLAGEN FIBERS ARE OBSERVED. THE REMAINING FIBRILLS HAVE DIFFERENT THICKNESS AND SHAPE, ARE IRREGULARLY ORIENTED, AND ACQUIRE ARGENTOPHILIA. THE ELASTIC CARCASS OF THE BUCCAL MUCOSE IS DESTROYED. INTENSIVE PROLIFERATION REACTION OF LYMPHO HISTIOCYTIC ELEMENTS IS NOTED. LEPROUS CELLS REPRESENTING DERIVATIVES OF THE HISTIOCYTIC SERIES POSSESS ALL THE CHARACTERISTICS OF MACROPHAGES WHICH HAVE THE STRUCTURE AND HISTOCHEMICALLY DETECTABLE PROPERTIES SPECIFIC FOR LEPROUS FORMATIONS. INVOLVEMENTS OF THE WALLS OF BLOOD VESSELS IS CONSIDERABLE, EVEN THOUGH THIS PROCESS IN SPECIFIC GRANULOMAS IS FREQUENTLY OVERLAPPED BY INTENSIVE FORMATION OF NEW VESSELS OF THE CAPILLARY TYPE. EPITHELIUM OF THE BUCCAL MUCOSE IN FOCI OF LEPROUS LESIONS IS CHARACTERIZED, AS A RULE, BY REARRANGEMENT OF CYTOPLASMIC GLYCOGEN, THE AMOUNT OF WHICH IN PROLIFERATING EPITHELIAL CELLS IS FREQUENTLY INCREASED MARKEDLY. IN THOSE CASES WHERE LEPROMATOUS FOCI OCCUR IN THE IMMEDIATE PROXIMITY TO THE EPITHELIAL LINING OR INVOLVE IT IN THE PROCESS, DESTRUCTION OF THE BASAL MEMBRANE IS OBSERVED. EPITHELIAL CELLS OFTEN UNDERGO NECROSIS, ULCERATIVE DEFECT IS FORMED, THE BOTTOM OF WHICH CONSISTS OF THE GRANULATION TISSUE.

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UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124183

ABSTRACT/EXTRACT--AS LEPROUS FOCI DEVELOP, THE AMOUNT OF FIBER FORMING CELL ELEMENTS CHARACTERIZED BY INCREASED PIRONINOPHILIA OF THE CYTOPLASM INCREASES IN THEM, FIBRILLOGENESIS IS INTENSIFIED MANIFESTING IN MARKED SUBSTITUTION OF LEPROMATOUS FOCI BY THE CICATRICIAL TISSUE.
FACILITY: PATOMORFOLOGICHESKAYA LABORATORIYA TSENTRAL'NOGO N-I INSTITUTA STOMATOLOGII, MOSCOW, AND KAFEDRA TERAPEVTICHESKOY STOMATOLOGII SMOLENSKOGO MEDITSINSKOGO INSTITUTA.

UNCLASSIFIED

1/2 029 UNCLASSIFIED PROCESSING DATE--02OCT70
TITLE--EXPERIMENTAL AND MORPHOLOGICAL EVALUATION OF COPOLYMER ON THE BASIS
OF METHYLMETACRYLATE AND RUBBER PROPOSED AS BASIS MATERIAL FOR THE
AUTHOR--(04)--PANIKAROVSKIY, V.V., YAGUDIN, A.D., PASHININ, B.P.,
POYUROVSKYAY, I.YA.
COUNTRY OF INFO--USSR

SOURCE--STOMATOLOGIYA, 1970, VOL 49, NR 2, PP 57-60

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--DENTISTRY, PROSTHESIS, METHYL METHACRYLATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1986/0328

STEP NO--UP/0511/70/049/002/0057/0060

CIRC ACCESSION NO--AP0102790

UNCLASSIFIED

2/2 029

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0102790

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SUMMARY. THE AUTHORS STUDIED REACTION OF THE ANIMAL TISSUES ON THE IMPLANTED SAMPLES OF COPOLYMER ON THE BASIS OF METHYLMETACRYLATE AND RUBBER. IT WAS ESTABLISHED THE INDIFFERENCE OF THE REFERRED TO COPOLYMER IN RESPECT TO THE TISSUES OF ANIMALS, THIS MAKING IT POSSIBLE TO USE THIS MATERIAL AS A BASIS FOR THE PREPARATION OF REMOVABLE PLATE DENTAL PROSTHESES.

UNCLASSIFIED

1/2 024 UNCLASSIFIED PROCESSING DATE--18OCT70
TITLE--THE HISTOPATHOLOGY OF NEUROFIBROMATOSIS OF THE MAXILLOFACIAL REGION
-U-
AUTHOR--(02)-PANIKAROVSKIY, V.V., SAVITSKIY, V.A.
COUNTRY OF INFO--USSR
SOURCE--STOMATOLOGIYA, 1970, VOL 49, NR 3, PP 39-43
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--TUMOR, SURGERY, JAW, HISTOLOGY, MICROSCOPY
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1998/0083 STEP NO--UR/0511/70/049/003/0039/0043
CIRC ACCESSION NO--AP0120783
UNCLASSIFIED

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UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0120733

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SUMMARY. TUMORS REMOVED FROM 31 PATIENTS SUFFERING FROM NEUROFIBROMATOSIS OF THE MAXILLOFACIAL REGION WERE STUDIED HISTOLOGICALLY. THE PAPER DESCRIBES THE GENERAL NEUROFIBROMATOUS LESIONS, DETAILS OF THE STRUCTURE OF NEUROFIBROMA, THE STATE OF NERVE PATHWAYS THEREIN, INTERRELATION BETWEEN NEOPLASTIC ELEMENTS AND ADJACENT TISSUES. MICROSCOPIC MORPHOLOGICAL FEATURES PECULIAR TO THE TUMOR HAVE A DEFINITE INFLUENCE ON THE CLINICAL MANIFESTATIONS OF THE PROCESS AND SHOULD BE TAKEN INTO CONSIDERATION IN THE CHOICE OF RATIONAL METHODS OF TREATMENT, SUBSTANTIATION OF THE VOLUME AND CHARACTER OF THE OPERATIVE INTERVENTION, EVALUATION OF ITS RESULTS AND PROGNOSIS OF THE DISEASE. FACILITY:

PATOMORFOLOGICHESKAYA LABORATORIYA TSENTRAL'NOGO N-I INSTITUTA STOMATOLOGII AND KAFEDRA KHIRURGICHESK STOMATOLOGII I VOSSTANOVITES'NOY KHIRURGII LITSA TSENTRAL'NOGO INSTITUTA USOVERSHENSTVOVANIYA VRACHEY.

UNCLASSIFIED

Acc. Nr:

AP0046254

P

Ref. Code: UR 0511

PRIMARY SOURCE: Stomatologiya, 1970, Vol 49, Nr 1, pp 9-14

Panikarovskiy, V. V.; Grigor'yan, A. S.; Sazonova, V. I.
THE STATE OF THE
ADRENAL CORTEX IN RATS KEPT ON A SACCHAROSE-CASEIN CARIESOGENIC
DIET

Summary. At early periods of the experiment (7th—21st day) in the glomerular zone there were noted a drop in the content of lipids, intensification of pyroninophilia, decrease of the level of ascorbic acid. In the ganglionic zone, on the contrary, there were observed an intensification of sudanophilia, a drop in the RNA content and local intensification of the reaction to ascorbic acid. At late periods of observation (30th—180th day) the referred to changes intensify. However, on the 360th day in some cells of the glomerular zone there appear sudanophilic inclusions, while in cells of the ganglionic zone sudanophilia decreases simultaneously. In the adrenal glands of rats at different periods of the experiment there appear sub-, intra- and extracapsular regenerative proliferates from cells of the glomerular and (more rarely) of the ganglionic zone.

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19781372

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1/2 023 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--NEUROHISTOLOGICAL CHANGES IN THE PERIPHERIC NERVOUS SYSTEM OF
POSTMORTEM ELDERLY AGE GROUPS -U-
AUTHOR--PANIKARSKIY, V.G.
COUNTRY OF INFO--USSR
SOURCE--VRACHEBNOYE DELO, 1970, NR 5, PP 114-117
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--GERONTOLOGY, STOMACH, NERVE DEGENERATION, HISTOLOGY, BIOLOGIC
AGING
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3002/1748 STEP NO--UR/0475/70/000/005/0114/0117
CIRC ACCESSION NO--AP0129116
UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0129116

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ANALYSING POSTMORTEM DATA OF THOSE DYING IN ACCIDENTS (AGE: 50-94 YEARS) IT WAS FOUND THAT MYELIN FIBERS OF THE STOMACH AND SCIATIC NERVE WERE THE MOST VULNERABLE IN THE PROCESS OF AGEING. NEUROHISTOLOGICAL CHANGES IN THOSE DYING BEFORE THE AGE OF 80 YEARS MAINLY CORRESPONDED TO ATROPHY AND WERE RESTRICTED ONLY BY PERIAXONAL PROCESSES. WITH AGEING THE ATROPHIC PROCESSES ADVANCED AND NOT INFREQUENTLY ENDED IN WALLERIAN DEGENERATION. SUCH CHANGES WERE MOST MARKED IN THE NERVE FIBERS OF THE SCIATIC NERVE. DEGENERATIVE ATROPHIC PROCESSES IN THE NERVE FIBERS TOOK THE COURSE OF WEAK REACTIVE CHANGES OF THE SCHWANN CELLS, CONNECTIVE TISSUE AND FIBROUS STRUCTURES OF THE NERVE SHEATHS. FACILITY: LABORATORIYA PATOLOGII NERVNYKH STVOLOV KYIEVSKOY OBLASTNOY KLINICHESKOY BOL'NITSY.

UNCLASSIFIED

1/2 020 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--NERVE FIBERS OF THE INTRAMURAL SYSTEM OF THE STOMACH AND SCIATIC
NERVE IN THE EARLY AND SENILE PERIODS OF LIFE -U-
AUTHOR--PANIKARSKIY, V.G. P

COUNTRY OF INFO--USSR

SOURCE--VRACHEBNOYE DELO, 1970, NR 3, 53-56

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BIOLOGIC AGEING, NERVOUS SYSTEM DISEASE, NERVE FIBER, NERVE
DEGENERATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1986/0962

STEP NO--UR/0475/70/000/003/0053/0056

CIRC ACCESSION NO--AP0102901

UNCLASSIFIED

2/2 020

UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0102901

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DEGENERATIVE ATROPHIC DISORDERS IN THE NERVE FIBERS OF THE INTRAMURAL NERVOUS SYSTEM OF THE STOMACH AND SCIATIC NERVE OF ELDERLY AND SENILE PERSONS ARE CHARACTERIZED BY CERTAIN PECULIARITIES CONSISTING IN DELAYED DEGENERATION OF MYELIN, EVACUATION OF THE DEGENERATION PRODUCTS BEING SIGNIFICANTLY RETARDED (PARTICULARLY IN PERSONS OVER 80). THESE CHARACTERISTICS OF DEGENERATIVE CHANGES ARE A SEQUEL OF A REDUCTION OF REACTIVE CAPACITY OF THE SCHWANN CELLS, CONNECTIVE TISSUE ELEMENTS, EVIDENCING CERTAIN DEGREES OF INVOLUTION OF THE AGED HUMAN ORGANISM.

UNCLASSIFIED

USSR

UDC 616.857-085.7:612.223.3

PANIKARSKIY, V. G., and SHILOVA, E. N., Kiev Oblast Clinical Hospital

"Effect of Biotron and Drug Treatment on Headaches"

Kiev, Vrachebnoye Delo, No 11, Nov 70, pp 77-80

Abstract: Weather conditions have a considerable effect on patients with hypertension. Drug therapy may be ineffective in the treatment of these patients if the weather conditions disturb the equilibrium between the patients' organism and the environment to such an extent that the capacity of the organism for adaptation is exhausted. In the treatment of headaches superinduced by hypertension in a group of 128 patients (65 men and 63 women), administration of drugs (motherwort extract with bromine, depressin, KCl, analgin, papaverine, and dibazol) for 6-15 days was ineffective. The patients were transferred to the biotron department (wards with an artificially controlled microclimate). As a result of a stay in the biotron department, the headaches were cured completely in 85.15 percent of the cases and alleviated in 14.06 percent of the cases. The condition of the patients was also improved in other respects. Under the influence of the controlled conditions in the biotron, the arterial pressure of the patients also dropped.

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USSR

UDC 621.791

YAROVINSKIY, Yu. L., Candidate of Technical Sciences, PANIN, A. V., Engineer,
and KOLUPAYEV, Yu. F., Engineer

"Investigation of the Influence of Multipass Welding Upon the Mechanical
Properties of Welded Seams of Titanium Alloys VT6s and VT14"

Moscow, Izvestiya Vysshikh Uchebnykh Zavedeniy, Mashinostroyeniye, No 5,
1972, pp 128-134

Abstract: The article deals with an experimental investigation of the relationship of the mechanical properties of welded seams to the number of welding passes in the production of spherical containers from titanium alloys VT6s and VT14 by means of the newly introduced technique of multipass argon-arc welding by a submerged arc without dressing the edges. It is shown that considerable weakening of the welded seam does not take place, and the plastic characteristics do not change, while the observed grain increase does not exert a significant influence upon the mechanical properties of the welded seams. 1 figure.
4 tables.

1/1

USSR UDC 619:616.9.022.7+636.2+636.3+636.4+636.52/.58

PANIN, G. I.

"The Effectiveness of Associated Preparations Against Experimental Erysipelas and Hog Cholera of Swine"

V sb. Sb. nauchn. rabot. Sib. n.-i. vet. in-t. (Siberian Scientific Research Veterinary Institute -- Collection of Scientific Works), No 17, 1970, pp 158-161 (from RZh-Zhivotnovodstvo i Veterinariya, No 3, Mar 71, Abstract No 3.58.611)

Translation: Associated vaccination of swine with blood crystal-violet hog cholera vaccine and depoted or dry mildly virulent erysipelas vaccine provided the animals with reliable immunity against hog cholera plague and erysipelas (test infection after 53 days). The best immunogenic effect was obtained after inoculation of a combined preparation which had been prepared on the day of its use.

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- 99 -

USSR

UDC 533.6.071:621.002

PANIN, I. D. and TRET'YAKOV, G. P.

"Special Features of the Manufacture of Wind Tunnel Nozzles"

Novosibirsk, Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR, Seriya Tekhnicheskikh Nauk, Issue 1, No 3, 1973, pp 136-139

Abstract: For more than 10 years the Experimental Plant of Siberian Department has been preparing wind tunnel nozzles of various design; this work represents a complex evolution ranging from primitive manual methods for working aluminum alloys, to the mechanized template-based industrial production of heat-resistant, stainless steel nozzles.

Master forms, templates and plane tables are essential in mechanized nozzle production. The template is simply a plate with cut-out whose outline corresponds to a given contour of the complex surface of a part or unit; the master form is a device which assures appropriate direction of feed to the copying machine or cutting instrument.

Other production equipment, illustrated and discussed in the article, is the horizontal milling machine 6N33 for preparing curvilinear surfaces of plane-parallel nozzles, the 6441E machine for the same purpose, the 163 model 1/2

USSR

PANIN, I. D., and TRET'YAKOV, G. P., Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR, Seriya Tekhnicheskikh Nauk, Issue 1, No 3, 1973, pp 136-139

for processing curvilinear surfaces of axisymmetrical nozzles, and a installation for producing supersonic nozzles by the galvanic method. An experimental nozzle with critical channel cross-section of 24.9 mm is discussed.

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USSR

UDC: 621.372.54

DYCHAKOVSKIY, V. B. and PANIN, I. I.

"A Method of Constructing Active Filters of Upper and Lower Frequencies"

Elektron. tekhnika. Nauchno-tekhn. sb. Mikroelektronika (Electronic Engineering, Scientific-Technical Collection, Microelectronics) 1970, No. 2(23), pp 71-76 (from RZh-radiotekhnika, No. 3, March 71, Abstract No. 3A191)

Translation: To obtain a sufficiently high steepness of the amplitude-frequency characteristic of upper and lower frequency filters, a method is proposed for constructing such filters in three stages, the active parts of which are in the form of buffer amplifiers with high input resistance and voltage transfer factors close to unity. A distributed RC circuit is used as the frequency-selecting element. The schematics and the transfer factors for the different types of stages are given. Resume

1/1

Acc. Nr.: **AP0031218**

Ref. Code: UR 0219

PRIMARY SOURCE: Byulleten' Eksperimental'noy Biologii i
Meditsiny, 1970, Vol 69, Nr 1, pp 31-34

ON THE MODE OF THE ADRENOCORTICOTROPIC HORMONE AND HYDRO-
CORTISONE ACTION ON THE ACTIVITY OF THE TISSUE HEXOKINASE

~~I. V. Parin~~
Toms'k Medical Institute

Hydrocortisone is shown to avert the decline of hexokinase activity in the muscles and heart of rabbits fasting for 5 days. In the liver this effect was but weakly pronounced, with the glycogen content remaining normal. Adrenocorticotrophic hormone hinders more effectively than does hydrocortisone the lowering of the hexokinase activity in the muscles, heart, and particularly in the liver of fasting animals, with glycogen proportion decreasing quite sizably. An analysis of sugar curves and morphological findings demonstrated the stimulating effect of hydrocortisone to be associated with the intensification of glyconeogenesis and activation of α -cells in Langerhan's islands of the pancreas. The stimulating effect of ACTH is not limited to the action coming via the adrenals and is, probably, linked with activation of β -cells in Langerhan's islands of the pancreas.

REEL/FAME

19691267

2 MK

1/2 023 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--ALLERGIC REACTIONS IN STOMATOLOGICAL PATIENTS -U-
AUTHOR-(02)-BOKANOVA, ZH.V., PANIN, M.G.
COUNTRY OF INFO--USSR
SOURCE--STOMATOLOGIYA, 1970, VOL 49, NR 3, PP 24-26
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--ORAL DISEASE, ALLERGIC DISEASE, SELECTIVE DRUG EFFECT,
ANALGESIC DRUG, ANTIBIOTIC, PENICILLIN, STREPTOMYCIN
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1998/0097 STEP NO--UR/0511/70/049/003/0024/0026
CIRC ACCESSION NO--AP0120797
UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--23OCT70

GIRC ACCESSION NO--AP0120797

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. FROM PERTINENT LITERATURE DATA IT IS KNOWN THAT DURING THE LAST YEARS THERE IS SEEN A TENDENCY TOWARDS AND INCREASED INCIDENCE OF NONSPECIFIC, MAINLY ALLERGIC COMPLICATIONS FROM DIFFERENT DRUGS IN THE STOMATOLOGICAL PRACTICE. THE AUTHORS REPORT ON 30 STOMATOLOGICAL PATIENTS (25 WOMEN AND 5 MEN, AGED 13-73 YEARS) WITH ALLERGIC REACTIONS TO DIFFERENT MEDICINAL SUBSTANCES (NOVOCAIN, PENICILLIN, STREPTOMYCIN, IODOLIPOL, CALCIUM CHLORIDE, DICAIN, STREPTOCID, AMIDOPYRINE, ANALGIN). THE ALLERGIC REACTIONS ARE DESCRIBED.

FACILITY: VSES. TSENTR PO IZUCHENIYU POBOCHNOGO DEYSTVIYA LEKARSTV MINISTERSTVA ZDRAVOOKHRANENIYA SSSR, KAFEDRA KHIRURGICHESKOY STOMATOLOGII MOSKOVSKOGO MEDITSINSKOGO STOMATOLOGICHESKOGO INSTITUTA, AND KAFEDRA STOMATOLOGII I MOSKOVSKOGO MEDITSINSKOGO INSTITUTA IM. SECHENOVA.

UNCLASSIFIED

USSR

UDC 536.46:533.6

PANIN, V. F., PARFENOV, L. K., ZAKHAROV, Yu. A.

"On the Phenomenon of Three Flame Propagation Limits in a $H_2-O_2-N_2$ System"

V sb. Goreniye i vzryv (Combustion and Explosion -- Collection of Works), Moscow, "Nauka", 1972, pp 293-295 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3B971)

Translation: The flame concentration limits in hydrogen-oxygen-nitrogen mixtures were studied experimentally in the pressure range $\sim 10^{-1} - 10^3$ mm Hg. The existence of two limits (in terms of pressure) was established for flame propagation: flame propagation at a certain H_2 concentration is possible only in a limited pressure interval for a given O_2 content in the system. Analysis of the experimental results and published data made it possible to propose the existence of three pressure limits for flame propagation in the $H_2-O_2-N_2$ system. A schematic picture is proposed for a system in the pressure range $10^{-1} - 10^5$ mm Hg. 6 ref. Authors' abstract.

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USSR

UDC 539.67

VARYPAYEV, E. S., PANIN, V. Ye., and SOLOV'YEV, L. A.

"Amplitude Dependence of internal Friction of a Series of Concentrated Copper Solid Solutions"

Sb. "Vnutrenneye treniye v metallicheskih materialakh" (Internal Friction in Metallic Materials), Moscow, Izd-vo "Nauka," 1970, pp 104-110

Abstract: Internal friction of single-phased concentrated Cu - Ga and Cu - Ge solid solutions was investigated in the range of 10^{-6} - 10^{-3} relative amplitudes. An amplitude-independent region and sections described by linear function appeared on characteristics of the decrement dependence on deformation amplitude.

It is shown that critical stress τ' , determining the onset of micro-deformation, depends on alloy concentration and is determined by the resistance to motion of a free dislocation from solid solution impurities atoms. The second critical stress τ'' characterizes the appearance of irreversible processes in structure. 5 figures, 13 references.

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172 022
UNCLASSIFIED
TITLE--EFFECT OF CHROMIUM ALLOYING ON ELECTRON STRUCTURE AND ORDERING IN
NI SUB3 MN ALLOY -U-
AUTHOR--(04)--FADIN, V.P., RYABYSHKINA, G.A., PANIN, V.YE., PRUSHINSKIY,
V.V.
COUNTRY OF INFO--USSR
SOURCE--IZV. VYSSH. UCHEB. ZAVED., FIZ. 1970, 13(2), 44-51
DATE PUBLISHED--70
SUBJECT AREAS--PHYSICS, MATERIALS
TOPIC TAGS--ELECTRON STRUCTURE, CHROMIUM ALLOY, NICKEL ALLOY, MANGANESE
ALLOY, MODEL
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1993/1916
CIRC ACCESSION NO--AT0114356
STEP NO--UR/0139/70/013/002/0044/0051
UNCLASSIFIED

2/2 022

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AT0114356

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A STUDY OF PARAMETERS WHICH CHARACTERIZE THE STATE OF THE ALLOYS (RESISTANCE R , INTERNAL INDUCTION SATN., θ SUBS, ABS. THERMAL EMF. S) AND OF THE NEUTRON DIFFRACTION DIAGRAMS WAS USED TO DET. THE EFFECT OF CR ALLOYING ON THE STRUCTURE OF THE D BAND AND ON THE ORDERING PROCESSES. THE ADDN. OF CR DECREASES THE VALUES OF θ SUBS FOR THE DISORDERED ALLOY AS WELL AS THE CHANGE IN θ SUBS UPON ORDERING. THUS, THE ANTIFERROMAGNETIC INTERACTION OF THE ATOMS IN THE MN-CR PAIRS IS GREATER THAN IN THE MN-MN PAIRS. THE NEUTRON DIFFRACTION DATA SHOW THAT EVEN FOR SMALL AMTS. OF CR (SIMILAR TO 9 AT PERCENT) A HIGH DEGREE OF LONG RANGE ORDER IS ESTABLISHED IN THE ALLOY. THE VALUES OF R ARE GREATER IN THE ORDERED THAN IN THE DISORDERED ALLOY DUE TO THE INCREASE IN THE D. OF THE ELECTRON STATES IN THE 3D BAND OF THE ORDERED ALLOYS RESULTING IN AN INCREASED PROBABILITY FOR THE SCATTERING OF THE 4S ELECTRONS IN THE 3D BAND. THE VALUE OF S EQUALS $F(R)$ INDICATES THAT THERE IS A CLOSED FERMI SURFACE IN BOTH THE DISORDERED AND ORDERED ALLOYS FOR LOW CR CONCNS. (SMALLER THAN 6 AT. PERCENT) AND AN OPEN FERMI SURFACE FOR HIGHER CONCNS. FOR ALLOYS WITH LOW CR CONCNS. THE MODEL WITH A RIGID 3D BAND IS APPLICABLE. LARGER CONCNS. PERTURB THE STRUCTURE OF THE 3D BAND. FACILITY: SIB. FIZ.-TEKH. INST. IM. KUZNETSOVA, TOMSK, USSR.

UNCLASSIFIED

Acc. Nr:

AT0047569

Abstracting Service:
CHEMICAL ABST.

5/70

Ref. Code:

UR0139

92841n Nature of the acceleration of ordering processes during the alloying of Ni₃Mn with iron, cobalt, and chromium. Prushinskii, V. V.; Panin, V. E.; Radin, V. P.; Lotkov, A. I. (Sib. Fiz.-Tekh. Inst. im. Kuznetsova, Tomsk, USSR). *Izv. Vyssh. Ucheb. Zaved., Fiz.* 1970, 13(1), 73-8 (Russ.). Ordering processes of alloying were studied of Ni₃(Mn, M) alloys, where M = Fe, Co, or Cr. The study reveals that the basic reason for the acceleration of the ordering processes in the alloys is the change of the mechanism of ordering from homogeneous in Ni₃Mn to heterogeneous in ternary alloys. HMJR -

MIT

REEL/FRAME
19791135

18

1/2 012 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--HIGH ENERGY INTERNAL CONVERSION ELECTRONS EMITTED BY SAMARIUM 150
AND GADOLINIUM 158 IN N, GAMMA REACTIONS -U-
AUTHOR--(02)-PANIN, YU.N., PELEKHOV, V.I.
COUNTRY OF INFO--USSR
SOURCE--IZV. AKAD. NAUK SSSR, SER. FIZ. 1970, 34(4), 804-12
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS, NUCLEAR SCIENCE AND TECHNOLOGY
TOPIC TAGS--ELECTRON, SAMARIUM ISOTOPE, GADOLINIUM ISOTOPE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3008/2045 STEP NO--UR/0048/70/034/004/0804/0812
CIRC ACCESSION NO--AP0138899
UNCLASSIFIED

2/2 012

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0138899

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE SPECTRA WERE STUDIED OF
INTERNAL CONVERSION E EMITTED BY PRIME180 SM AND PRIME150 GD FOR
TRANSITION ENERGIES GREATER THAN OR SIMILAR TO EMV. INDIVIDUAL LINES OF
THE SPECTRA ARE IDENTIFIED AND THEIR CHARACTERISTICS (COEFF. OF INTERNAL
CONVERSION IN THE K SHELL, TYPE AND MULTIPOLARITY OF TRANSITION) ARE
PRESENTED.

UNCLASSIFIED